



BOROUGH OF DARWEN

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
FOR THE
YEAR ENDING DECEMBER 31st 1938.

G. McCLOSKEY, M.B., B.Ch., B.A.O., D.P.H.

MEDICAL OFFICER OF HEALTH



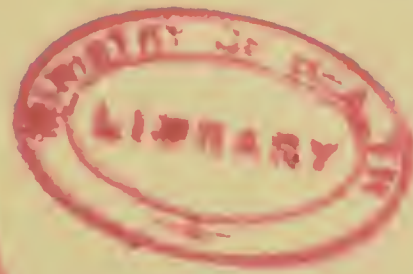
*With the Compliments
of the
Medical Officer of Health*

*Public Health Dept.,
Darwen.*



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PUBLIC HEALTH DEPARTMENT,

DARWEN.

JULY, 1939.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

LADIES AND GENTLEMEN,

I have pleasure in presenting to you the ANNUAL REPORT on the work of the Public Health Department.

The following were the features of interest during the year—

VITAL STATISTICS.

Compared with the average of the previous five years, 1933-37 inclusive, it is found that there were slight increases in the birth rate, in the death rate from all causes, and the death rates from cancer and tuberculosis of the respiratory system : there was a decrease in the maternal mortality rate but a slight increase in the infant mortality rate.

MIDWIVES ACT, 1936.

After considerable delay due to protracted negotiations, the provisions of the Act came into force in Darwen on 1st October, 1938. The results so far experienced are somewhat disappointing consequent to some extent on this delay, and are fully analysed in the Section on Maternity and Child Welfare.

NEW HEALTH CENTRE.

It is to be regretted that building has not yet commenced on this project, but it is hoped that some progress may be achieved during the coming year.

STAFF.

The resignation of Miss Johnson, a very efficient and conscientious Health Visitor took effect on December 31st. Considerable difficulty was experienced in obtaining a candidate with the necessary qualifications to accept the post.

Continued expansion of the Maternity and Child Welfare Services and recent new developments such as the establishment of routine and consultative Ante-Natal Clinics and Mothers Dental Clinic throw fresh burdens on the Nursing Staff and make imperative the appointment of the additional nurse so long contemplated.

These changes, apart from A.R.P. organisation, have also entailed increased clinical duties and administrative responsibilities for the Medical Officer of Health, and the appointment of at least a part-time assistant appears to be inevitable.

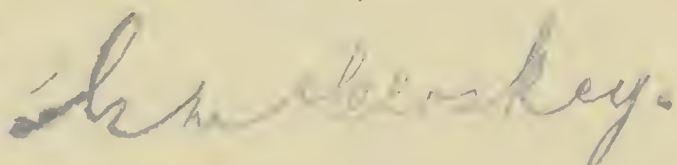
HOSPITAL MAINTENANCE.

While recently arrangements have been made for the admission of abnormal maternity cases to Blackburn Royal Infirmary and Queen's Park Hospital, normal maternity cases to Springfield and for the employment of Municipal Midwives and a scale of recovery charges for these services adopted, there remains the question of the admission of normal maternity cases to Queen's Park Hospital—a problem which is assuming alarming proportions. The recovery of fees in connection with these services generally is very disappointing and the question will require exploration to discover a more remunerative basis.

In conclusion I have pleasure in acknowledging the consideration and support shown by the Chairman and Members of the Health Committee to recommendations made for the extension and improvement of the public health services. I wish to record my appreciation of the excellent service rendered by Dr. Potter and Dr. Clarke ; the Nursing Staff ; the Sanitary Inspectors ; and the Clerical Staff. The co-operation of the heads of the other departments has been an invaluable aid in surmounting difficulties. Finally, tribute must be paid to Mr. J. C. Almond, without whose assistance this report could not have been compiled.

I am, Ladies and Gentlemen,

Your obedient Servant,



MEDICAL OFFICER OF HEALTH.

Members of the Health Committee

1938-39.

COUNCILLOR JOHN GREGORY, J.P., MAYOR.

Chairman :

* COUNCILLOR DR. T. J. COSTELLO.

Vice-Chairman :

* COUNCILLOR E. L. CARUS.

ALDERMAN F. C. DUCKWORTH.

„ H. D. HOLLAND

„ *W. KNOWLES, J.P.

„ *R. MARSDEN, J.P.

„ G. PICKUP, J.P.,

„ *W. WORTH, J.P.

COUNCILLOR J. BRAITHWAITE.

„ J. A. BROOKS

„ J. T. CLARK, J.P.

„ R. ECCLES.

„ J. HARWOOD.

*COUNCILLOR R. W. HILL.

„ *MRS. A. HINDLE, J.P.

„ A. HOLDEN J.P.,

„ F. E. LIGHTOLLER, J.P.

„ *J. D. W. SHAW, J.P.

„ R. SHORROCK.

„ *D. SMITH.

„ *MRS. B. THOMPSON, J.P.

„ E. WESTWELL.

„ E. YATES.

* MEMBER OF HEALTH SUB-COMMITTEE.

CHARLES COUTTS BYERS, Town Clerk

Staff of the Health Department.

MEDICAL OFFICER OF HEALTH	} G. McCLOSKEY, M.B., B.Ch., B.A.O. D.P.H.
SCHOOL MEDICAL OFFICER	
MEDICAL OFFICER OF INFECTIOUS DISEASES HOSPITAL	
SENIOR SANITARY INSPECTOR {	} J. C. ALMOND, M.R.S.I., M.S.I.A.
MEAT INSPECTOR	
DISTRICT {	} ... (North Division)—F. LITTLECOTT, A.R.S.I., M.S.I.A.
SANITARY INSPECTORS..... {	
... (South Division)—H. R. SULWAY, A.R.S.I.	
MATRON, INFECTIOUS DISEASES HOSPITAL... MISS E. ANTHONY, A.R.R.C., S.R.N., S.C.M.	
CONSULTANT OBSTETRICIAN A. L. POTTER, M.D., M.R.C.S., M.C.O.G.	
HEALTH VISITORS AND	} ... MRS. H. H. SHAWCROSS, CERTIFIED MIDWIFE.
CHILD PROTECTION VISITORS...	
*MISS D. M. JOHNSON, CERT. MIDWIFE, A.R.S.I., CERT. H.V. AND S.N.	
MUNICIPAL MIDWIVES {	} M. RIGG, S.R.N., S.C.M.
..... F. B. RIMMER, S.R.N., S.C.M.	
INSPECTOR OF MIDWIVES MRS. H. H. SHAWCROSS.	
SCHOOL DENTIST (PART TIME)..... R. V. CLARKE, L.R.C.S., L.R.C.P., L.D.S.	
SCHOOL NURSE... *MISS M. CRAINE, S.R.N., S.C.M., H.V. (R.SAN INST.)	
CLERKS... W. HAWORTH, H. HUTCHINSON, J. BAMFORD.	

* Resigned 31st December, 1938.

Clinics and Treatment Centres.

NAME OF CLINIC OR CENTRE	ADDRESS	DAYS AND TIMES,	BY WHOM PROVIDED
Maternity and Child Welfare	43, Bolton Road	Toddlers' Clinic— Daily 9—10 a.m. Consultative Clinic— Daily 9—10 a.m. and 4.30—5.30 p.m. (Saturdays—Mornings only). Routine Ante-Natal Clinic— Thursday at 10 a.m. Specialist Ante-Natal Clinic— Alternate Tuesdays at 10 a.m.	Darwen Corporation
do.	Greenfield	Infant Clinics— Tues. 2.30—5 p.m. Thurs. 2.30—5 p.m.	do.
do.	“Holker House,” Railway Road	Dental Clinic— Alternate Fridays at 2 p.m.	do.
Orthopædic Clinic	43, Bolton Road	Wednesday, 10 a.m.	As per Lancs. C.C. Scheme
Tuberculosis Dispensary	20, Railway Road	Monday, 10 a.m.	Lancs. County Council
Venereal Diseases Clinic	Blackburn Royal Infirmary	Males :— Tuesday 5 p.m. Friday 7.30 p.m. Females :— Monday 5.30 p.m. Thursday 6 p.m.	As per Lancs. C.C. Scheme

SECTION I.

STATISTICS AND SOCIAL
CONDITIONS
OF THE AREA.

Statistics and Social Conditions.

SOCIAL CONDITIONS.

There was little or no improvement in economic conditions during the year. Large numbers are still unemployed, while owing to the low standard of wages the plight of those working is sometimes worse. It is paradoxical that many of the employed qualify for free grants of milk, free dental treatment, free service of Municipal Midwives, etc. Even where husband and wife are working the position is not much better as paid assistance must be obtained to care for the children which are often neglected. In other instances the wife only is working, while the father takes over domestic duties. Apart from detriment to the children there are undesirable psychological reactions from such a reversal of the functions of the sexes.

It is also regettable that little was done to improve the housing conditions of the people. There is little satisfaction to be gained from the fact that as far as can be ascertained, there is no overcrowding because the standard adopted in the Overcrowding Act was ridiculously low. Although many new houses are required and all slum dwellings have been scheduled for representation, the Committee felt that economic conditions and continued emigration did not justify building new houses, but that the surplus of houses to let could be utilised for re-housing. Apart from the cost of the structural alterations necessary to bring these houses to something approaching modern standards, there is the loss of subsidy and it is questionable if the policy can be justified on economic as distinct from public health grounds. As considerable Government grants and subsidies are available for housing and other schemes to improve social services and amenities generally, it follows that any authority which does not avail itself fully of these opportunities is not obtaining benefits commensurate with its quota of contribution, and is indirectly financing the ventures of the more progressive authorities. Indeed such improvements apart from improving the lot of the citizens might well be considered to have some commercial value in the nature of window dressing giving a general air of prosperity and well-being which is perhaps most urgently needed where the threat of dereliction and decay is greatest.

The recent report on housing conditions in parts of Wales with particular respect to the problem of tuberculosis has disgusted everyone in whom the least degree of social conscience is developed. It is hoped that authorities with similar problems will be shocked into realisation of their responsibilities. The one factor above all which has tended to reduce the general mortality rate, the infantile mortality rate, the incidence of disease generally and of

tuberculosis in particular, has been the improved housing conditions which have been niggardly conceded after prolonged agitation and struggle against vested interests. Much, however, remains to be done and it is paradoxical that in this year of grace when National Fitness Campaigns abound and Health Propaganda is rife, that 40 per cent. of houses for the working classes in Darwen lack proper baths.

The two chief social cancers at the moment—particularly in Lancashire—are employment of female labour, because of its cheapness, and slum property. It is infamous that women should be working in mills shortly before and after confinement with the additional burdens of the home. It is not surprising that the children are neglected from birth and shortly become eligible for Nursery Schools, Open-air Schools, Convalescent Homes and Sanatoria. It is absurd that civilisation which has produced so much wealth cannot achieve a greater measure of health and happiness for the people. There can be no doubt that the cost of eradicating these social scourges would be more than compensated for by the saving of the countless millions now being spent in courts, goals, hospitals and mental institutions. The social evils so mitigated would be disease, crime, vice, folly and bad citizenship in general. Prevention—of the radical kind—is better than cure, and vastly cheaper in the long run.

STATISTICS.

Position	Lat. 53° 41' 25" N. Lon. 2° 28' 32" W.
Elevation above sea level	500 ft. to over 800 ft.
Geographical formation	Boulder clay and sand over coal measures.
Area (Acres)	5,959
Population—Census, 1931	36,012
Population—Registrar-General's Mid-yearly Estimate for 1938	31,850
Number of inhabited houses—Census, 1931	10,258
Number of inhabited houses at end of 1938	10,355
Number of families or separate occupiers at Census, 1931	10,385
Rateable Value	£188,184
Sum represented by a Penny Rate	£700

The inhabitants are of the artisan or working class, chiefly, and the principal industries are cotton weaving, paper making and staining, fireclay works and paint manufacturing.

The average percentage of unemployed insured adult persons during 1938 was 29.7 out of a total of 13,718.

EXTRACTS FROM VITAL STATISTICS FOR THE YEAR 1938.

	Total.	Males.	Females.	Birth Rate.
LIVE BIRTHS—Legitimate	368	192	176	11.8
Illegitimate	10	6	4	
	<hr/> 378	<hr/> 198	<hr/> 180	

	Total.	Males.	Female.	Rate per 1000 Births
STILL BIRTHS	19	8	11	47

	Total.	Males	Females.	Rate.
DEATHS	503	248	255	15.7

DEATHS FROM PUERPERAL CAUSES.

	Deaths.	Rate per 1000 Total Births.
From Puerperal Sepsis	1	2.51
From other Puerperal Causes	2	5.03
Total	<hr/> 3	<hr/> 7.54

DEATH RATES OF INFANTS UNDER ONE YEAR OF AGE.

All infants per 1,000 live births	22	(Rate 58)
Legitimate infants per 1,000 legitimate live births	22	(Rate 59)
Illegitimate infants per 1,000 illegitimate live births	0	(Rate 0)
Deaths from Measles (all ages)	1	(Rate 0.03)
,, ,, Whooping Cough (all ages)	0	(Rate 0.00)
,, ,, Diarrhoea (under 2 years of age)	0	(Rate 0.00)
,, ,, Cancer (all ages)	84	(Rate 2.63)

Vital Statistics.

POPULATION.

The population of Darwen as enumerated at the Census in 1931 was 36,012, while the Registrar-General's estimate at mid-year 1938, is 31,850, a decrease of 430 from the previous year. The continuance of the decline may be chiefly attributed to migration as a result of persistent economic difficulties. This decrease is most marked in the North-East, South-East and North-West Wards as shown in following table—

POPULATION IN WARDS.

Wards.	Census, 1931.	Estimated, 1938
Central	5,754	5,196
West-Central	2,991	2,861
North-East	8,312	7,410
North-West	6,554	5,713
South-East	6,779	5,633
South-West	5,622	5,037
	<hr/> 36,012 <hr/>	<hr/> 31,850 <hr/>

BIRTHS.

The number of births registered was 378, giving a birth rate of 11.8 per 1,000. The trend of this rate for the past ten years in comparison with the rate for England and Wales is shown in the following table—

Year	DARWEN				England and Wales
	No. of Births Male	Female	Total	Rate per 1000	Rate per 1000
1929	250	239	489	12.94	16.3
1930	250	188	438	11.83	16.3
1931	191	222	413	11.33	15.8
1932	210	188	398	11.18	15.3
1933	171	188	359	10.29	14.4
1934	178	199	377	11.02	14.8
1935	199	172	371	11.01	14.7
1936	189	165	354	10.71	14.8
1937	158	207	365	11.30	14.9
1938	198	180	378	11.86	15.1

The gradual decrease in the Darwen birth rate which has occurred during the last decade would appear to be arrested and, apart from the increased birth rate noted during 1938, there was an increase in the actual number of births. The rate is, however, still considerably below the national birth rate.

DEATHS.

(a) GENERAL DEATH RATE.

The number of deaths of Darwen residents which occurred during the year 1938 after allowing for inward and outward transfers was 503, representing a death rate of 15.78 per 1,000.

(b) DEATH RATE IN WARDS.

The death rates in the various Wards for the past ten years are shown in the following table—

Year	C.	W.C.	N.E.	N.W.	S.E.	S.W.	Borough.
1929	15.42	15.34	16.71	12.68	15.86	11.55	14.68
1930	14.25	12.35	10.91	14.15	13.13	12.47	12.81
1931	16.16	11.93	13.56	16.22	16.29	18.57	15.59
1932	14.48	15.03	13.76	15.03	15.88	15.63	14.89
1933	15.48	12.78	13.05	16.31	12.65	15.96	14.39
1934	12.02	12.06	13.32	17.12	13.73	11.84	13.51
1935	18.76	10.92	16.32	15.90	13.44	13.90	15.26
1936	15.39	17.20	12.99	15.34	17.78	15.31	15.39
1937	18.43	13.81	16.63	16.58	15.59	18.23	16.73
1938	11.32	15.37	16.86	15.92	17.57	15.68	15.78

(c) COMPARISON WITH THE NATIONAL DEATH RATE.

The trend of the death rate of the Borough during the past ten years is shown below in comparison with the rate for England and Wales generally—

Year	DARWEN		England and Wales
	Total Deaths	Rate per 1000	Rate per 1000
1929	555	14.68	13.4
1930	474	12.81	11.4
1931	568	15.59	12.3
1932	530	14.89	12.0
1933	502	14.39	12.3
1934	462	13.51	11.8
1935	514	15.26	11.7
1936	509	15.39	12.1
1937	540	16.73	12.4
1938	503	15.78	11.6

The death rate has been calculated upon a population of 31,850 as estimated by the Registrar-General for mid-year 1938. The death rate however, in any community is determined to some extent by the age and sex distribution of the population. To equalise returns for accurate comparison with other areas the crude death rate has to be multiplied by a factor supplied by the Registrar-General. This factor for Darwen is 1.02 which gives a Corrected Death Rate of 16.00.

(d) DEATHS IN RELATION TO SEX.

The number of deaths of males was 248 and of females 255.

(e) DEATHS IN RELATION TO AGE.

The percentage of deaths in the various age groups for the past ten years is shown in the table below—

	1938	1937	1936	1935	1934	1933	1932	1931	1930	1929
Under 1 year	22	20	26	18	17	25	19	34	31	42
1—5 years	8	4	12	14	4	14	12	15	12	14
5—25 years	10	23	13	22	16	25	24	23	27	22
25—65 years	188	218	176	195	186	191	212	221	186	236
Over 65 years	275	275	282	265	239	247	263	275	218	241
Total	503	540	509	514	462	502	530	568	474	555

The percentage of deaths over 65 years has gradually increased showing that people are surviving longer.

(f) INFANTILE DEATHS.

The number of deaths of infants under twelve months of age was 22 representing a rate of 58 per 1,000 births. How this rate has improved since the institution of the Child Welfare movement at the beginning of the present century is illustrated by the table below—

DEATHS OF INFANTS UNDER ONE YEAR.

Years	Deaths	Rate per 1000 births	Rate for England & Wales	Number of Deaths if 1901-1910 Rate still prevailed	Saving
1911—1920	717	110	...	856	139
1921—1930	441	78	...	760	319
1931	34	82	65	56	22
1932	19	47	65	54	35
1933	25	69	64	48	23
1934	17	45	63	51	34
1935	18	48	57	50	32
1936	26	73	59	48	22
1937	20	54	58	49	29
1938	22	58	53	51	29

This table shows that since 1911 Darwen has saved 684 infant lives over and above what would have been saved if the Infantile Mortality Rate for the decennium 1901-1910 had been maintained.

INFANTILE DEATHS.—CAUSES.

Analysis of the causes of mortality in infants under one year gives the following results for the past ten years—

Year	Premature Birth	Con- vulsions	Bronchitis and Pneumonia	Diarr- hoeal Diseases	Measles	Inanition	Con- genital Defects	Other Causes	Total
1929	11	3	11	0	0	0	3	14	42
1930	6	0	5	1	2	4	5	8	31
1931	10	1	5	0	0	0	4	14	34
1932	4	1	2	0	0	1	4	7	19
1933	10	0	4	1	0	1	3	6	25
1934	4	1	3	0	0	2	0	7	17
1935	5	0	1	0	0	0	0	12	18
1936	7	0	6	0	0	1	5	7	26
1937	2	0	2	0	1	1	11	3	20
1938	7	2	5	0	0	3	2	3	22

INFANTILE DEATHS.—WARD DISTRIBUTION.

Investigation of the mortality of infants in the different Wards of the Borough is shown below—

Year	Central	West- Central	North- East	North- West	South- East	South- West
1928	37	106	81	45	102	301
1929	173	93	66	62	48	139
1930	68	24	52	126	51	101
1931	113	83	81	103	70	57
1932	83	0	41	16	85	17
1933	76	83	85	102	35	54
1934	33	0	21	81	95	0
1935	44	142	51	0	38	57
1936	72	43	72	46	90	104
1937	80	76	86	0	45	53
Average 10 years	77	65	63	58	65	88
1938	43	58	154	18	25	20

While this table shows fluctuation in the various Wards from year to year, the average for ten years which is a more accurate guide, shows a definite tendency towards a high mortality in Central and South-West Wards, although in the latter case this can be accounted for by the abnormally high figure for the year 1928. The most constant low levels are furnished by North-East Ward, excepting the present year when 13 deaths occurred.

CAUSES OF DEATHS.

The first table in the appendices gives a complete statistical summary of the causes of death. A more concise picture is given in the following table, which sets out the diseases most fatal to Darwen residents—

Diseases	No. of Deaths	Proportion per 1000 Deaths		
		DARWEN 1938	England and Wales 1936	
i. Disease of Heart and Circulatory System	192	383	311	
ii. Cancer—Malignant Disease	84	167	134	
iii. Bronchitis, Pneumonia and other Respiratory Diseases	32	63	102	
iv. Diseases of Nervous System	39	77	82	
v. Tuberculosis—all forms	20	39	57	

The above table shows that the diseases which to Darwen residents were most fatal during 1938 were diseases of the heart and circulatory system and cancer, the rate for these being higher than the national ones. On the other hand Darwen appears to be more immune to Respiratory affections and Tuberculosis which points towards a healthy climate.

SECTION II.

GENERAL PROVISIONS OF HEALTH SERVICES FOR THE AREA.

General Provisions of Health Services for the Area.

PUBLIC HEALTH STAFF.

Full particulars of the Public Health Officers of the Authority are given on page 5.

LABORATORY FACILITIES.

There were no developments or changes during 1938 in the arrangements for laboratory work generally, which was performed by the Public Health Laboratory, Manchester.

Under the Lancashire County Council Tuberculosis scheme, Sputum Examinations were carried out by the Tuberculosis Department under Dr. MacPhee. Early in the year an arrangement was concluded with the Clinical Research Association, London, to undertake some of the Laboratory Work of the Department.

AMBULANCE FACILITIES.

(A) INFECTIOUS DISEASES.

The Darwen Corporation provide and maintain a Motor Ambulance which is used exclusively for removing patients to the Infectious Diseases Hospital at Bull Hill.

This service on the whole is satisfactory. An arrangement has now been made whereby the ambulance driver gets one week-end off duty every four weeks. The relief driver is provided by the firm holding the taxi hire contract for the time being, and the Junior District Sanitary Inspector is available on these week-ends to supervise and assist in the removal of patients to hospital.

(B) ACCIDENT AND SICK CASES.

Arrangements exist with two local garage proprietors to provide and maintain ambulances for the removal of Accident, Sick cases and Maternity cases. To avail oneself of this service a doctor's certificate must be produced in cases other than accident.

NURSING IN THE HOME.

The Darwen District Nursing Association satisfactorily maintain this service.

TREATMENT CENTRES AND CLINICS.

These are set out on page 6.

HOSPITALS.

I. GENERAL, SURGICAL AND MEDICAL CASES.

There is no hospital accommodation in Darwen for the treatment of these cases which are referred to the Royal Infirmary, Blackburn, an institution maintained by voluntary subscriptions.

II. INFECTIOUS DISEASES.

Cases of Diphtheria, Scarlet Fever, Erysipelas, Primary Pneumonia, etc., are admitted to the Darwen Corporation Isolation Hospital at Bull Hill (48 beds). Cases are admitted to the institution from surrounding areas, Turton, Oswaldtwistle and Blackburn Rural. The Medical Superintendent of the hospital is the Medical Officer of Health of Darwen.

SMALLPOX.

For Smallpox cases the Corporation have an arrangement with the County Borough of Blackburn whereby four beds are retained at Finnington Hospital.

TUBERCULOSIS.

Cases of Tuberculosis are admitted to various Sanatoria under the Lancashire County Council scheme.

PUERPERAL PYREXIA.

The arrangements for Hospital Treatment of Puerperal Pyrexia, difficult confinement, etc., are under the personal supervision of the Consultant Obstetrician.

VENEREAL DISEASES.

These cases are treated at Blackburn Royal Infirmary under the Lancashire County Council's scheme.

PUBLIC ASSISTANCE CASES.

Queen's Park Hospital, Blackburn, is the Public Assistance Infirmary for medical cases. There are also Maternity and Orthopædic Sections. The Public Assistance and Mental Services are administered by the Lancashire County Council.

HEALTH EDUCATION.

Special Lectures were given to various Social and Educational organisations by the Medical Officer of Health, Senior Sanitary Inspector, and the Matron of the Isolation Hospital, in addition to which posters supplied by the Health and Cleanliness Council were displayed.

WORKMEN'S COMPENSATION ACT, 1923.

Number of cases examined and reported upon by the Medical Officer to the Local Authority : Nil.

LOCAL GOVERNMENT SUPERANNUATION ACT, 1937.

Number of cases examined and reported upon by the Medical Officer to the Local Authority : 67.

SECTION III.

MATERNITY AND
CHILD WELFARE.

Maternity and Child Welfare.

1.—MIDWIFERY AND MATERNITY SERVICES.

During the year two salaried domiciliary midwives were appointed by the Local Supervising Authority in addition to the equivalent services of one and a half midwives from the Darwen District Nursing Association who also employed one and a half for their cases. There were five midwives in private practice making a total of ten names on the register at the end of the year.

Mr. Potter, consultant obstetrician, held clinics at fortnightly intervals during the period under review, and saw 82 individual ante-natal, and 23 post-natal cases. The total attendances made were 137 and 34 respectively.

The Medical Officer of Health held a weekly ante-natal clinic at which routine examinations were made and any abnormal conditions found referred to Mr. Potter. The number of women who attended the routine clinics was 186, who made 587 attendances ante-natally, and 14 women who made 22 post-natal attendances.

The Consultant Obstetrician was called out by local medical practitioners on 46 occasions, including one case where the services of the emergency unit were provided.

DENTAL CLINIC.

The dental scheme was not extended during the year but confined to expectant and nursing mothers as previously, with a two hourly session held fortnightly.

Patients were referred to the Dental Surgeon by the Medical Officer from the Ante-Natal and Post-Natal Clinics. The following is a brief summary of the treatment provided—

	Expectant mothers.	Nursing mothers.
No. of women referred to Dental Clinic by Medical Officer	8	13
No. of women found to require treatment	8	13
No. of women who received treatment	8	13
No. of treatments—		
(a) Fillings	—	—
(b) No. of teeth extracted	119	146
(c) No. of patients supplied with dentures	1	3
(d) No. of dentures supplied	2	4

MATERNAL MORTALITY.

Three maternal deaths were allocated to Darwen for the year 1938 and each was thoroughly investigated and reports forwarded to the Ministry of Health.

The Maternal Mortality Rate for Darwen was 7.55 per 1,000 live and still-births compared with 7.95 and 5.42 for 1937 and 1936 respectively. The Maternal Mortality Rate for the mean of the years 1933-1937 was 9.72.

The causes of the three maternal deaths were Nephritis of Pregnancy; Chronic Nephritis and Pulmonary Embolus. A comparative table over a number of years of the mortality rates is given below.

Year	Puerperal Fever Notific- ation	Total Births	Deaths		Still Births	Infantile Mortality Rate	Maternal Mortality Rate
			Puerperal Sepsis	Other Accidents or Diseases of Pregnancy			
1929	4	489	2	2	28	85	8.17
1930	3	438	1	2	24	70	6.84
1931	1	413	0	3	17	82	6.97
1932	3	398	4	2	32	47	13.95
1933	3	359	3	1	26	69	10.38
1934	4	377	2	5	30	45	17.19
1935	2	371	2	1	19	48	7.69
1936	1	354	0	2	15	73	5.42
1937	3	365	0	3	12	54	7.95
1938	*11	378	1	2	19	58	7.55

* Puerperal Pyrexia

INSTITUTIONAL PROVISION FOR MOTHERS.

There is no such provision in Darwen as the only private maternity home was removed from the register during the year. Queen's Park Hospital, Blackburn; Springfield Municipal Maternity Home, Blackburn; and Blackburn Royal Infirmary receive Darwen maternity patients, the last two mentioned being visited by the Obstetric Consultant who takes charge of all Puerperal Pyrexia cases when so desired by the practitioner.

HOME HELPS.

There is still no scheme operative for the provision of Home Helps for expectant mothers.

INSPECTION OF MATERNITY AND NURSING HOMES AND MIDWIVES.

The Medical Officer of Health and Supervisor of Midwives paid ten visits to the only Nursing Home in the Borough which, however, was removed from the register on the retirement of the Midwife in charge of the home under the Midwives Act, 1936, and compensation paid to her.

Seventeen inspections of midwives were paid by the Supervisor of Midwives during the year in addition to several made by the Medical Officer at his office.

MIDWIVES ACT, 1918.

The number of notices sent out by midwives calling in medical aid for illness of the patient or child, or any abnormality occurring during pregnancy was 85, and fees amounting to £33 5s. 0d. were paid.

CHILD WELFARE.

INSTITUTIONAL PROVISION AND ORTHOPÆDIC TREATMENT.

There is no hospital accommodation in Darwen for children's ailments. These cases are treated at Queen's Park Hospital and the Royal Infirmary, Blackburn. The former has an Open-air Section for Crippled Children.

The Lancashire County Council scheme for Orthopædic treatment became operative in Darwen in April, 1932, and supervises crippling defects in school and pre-school children. Cases requiring institutional treatment are sent to Ancoats Hospital, Manchester, or Biddulph Grange Orthopædic Hospital at the request of Mr. Milner, the Orthopædic Consultant.

A brief summary of the work carried out is set out below—

Number of individual school children attended	45
Number of individual pre-school children attended	36
Number of attendances made	509
Splints supplied	41
Remedial exercises given	132
Plasters applied	6
Number of children referred to Manchester Royal Infirmary for consultation	5

BIRTHS NOTIFIED AND REGISTERED.

The number of births notified to the Local Authority under the Births Notification Acts was 311.

This is a statutory obligation and requires the notification of every live birth and still-birth to the Local Authority within 36 hours.

The number of births registered during the year with the Local Registrar was 301, after deducting the births not belonging to the district.

STILL-BIRTHS.

The number of still-births notified in Darwen was 17. This figure when corrected for inward and outward transfers gives a nett result of 19 or a rate of 47 per 1,000 births (live and still). Each case is investigated and a record kept of the associated circumstances.

INFANT DEATHS.

Twenty-two infant deaths were recorded during 1938, giving a mortality rate of 58 per 1,000 births.

INFANT WELFARE CLINICS.

(A) NURSING AND MEDICAL SUPERVISION.

There are three Infant Clinics held weekly, one at Greenfield Centre and two at the Bolton Road Centre. Regular medical supervision was maintained by seeing and examining children, and giving advice on feeding and minor ailments at the Infant Consultation Session which, as mentioned in my last report, had been arranged. At the consultations it was the practice to examine all babies at first attendance, babies who had lost weight and babies suffering from any defect.

(B) SUMMARY OF INFANT CLINIC WORK.

	1937.	1938.
Number of Individual Children who first attended—		
Under 1 year	330	264
1—5 years	70	68
Total number of Attendances of Children—		
Under 1 year	5525	5969
1—5 years	4718	4205
Total number of weighings	10243	10174
Total number of Examinations by Medical Officer of Health	958	862
Total number of Defects found by Medical Officer of Health	781	669

Total number of Cases referred by Medical Officer of Health to—

(1) Blackburn Royal Infirmary for Examination and Treatment	11	3
(2) Queen's Park Hospital for Examination and Treatment	9	10
(3) Ophthalmic Surgeon	2	3
(4) Own Doctor	12	18
(5) Orthopædic Clinic	19	8
(6) School Dentist	0	8

The actual extent of the appreciation of this service is illustrated by the fact that of the total notified live births of infants in 1938, 84.8 per cent. attended the Infant Clinic compared with 93.2 per cent. for the previous year which shows a decrease, but still illustrates the usefulness of this service.

(c) SUPERVISION OF TODDLERS.

Although it was not possible to establish a special Toddlers' Clinic, such as is prevalent in many areas, for children from 1 to 5 years old whereby the "toddler" receives a periodic full medical inspection by the Medical Officer, considerable attention was paid to this aspect of the work. The object of a Toddlers' Clinic is to bridge the considerable gap which exists in child welfare work between the Infant Clinic and School Medical Inspection. Too often after the child is "put on its feet" it is lost trace of until discovered in the Infants' School, where the good work has been considerably neutralised as is borne out by the discovery of many preventable defects when examined in school.

At the Bolton Road Centre a morning clinic is held daily for the treatment of minor ailments in pre-school children for whom other facilities are not available.

(D) WEIGHING OF BABIES.

It must be further observed that overmuch value is attached to the weighing of babies. While periodic weighing of apparently healthy babies is desirable, weekly recording should be reserved for those whose condition is unsatisfactory, particularly when the weighing takes place with the child fully dressed as is the custom in Darwen. An attempt to remedy this during the year met with some success, but until the new clinic is available the mothers will have some excuse for persisting in their attitude.

(E) FEEDING—NATURAL AND ARTIFICIAL.

During the year much attention was paid to encouraging breast feeding of infants. Artificial feeding is resorted to overmuch where a little patience and persistence would yield better results. In these cases where the mother is malnourished, necessitous grants of milk and galactogogues were provided. There is no completely satisfactory substitute for human milk, but undoubtedly the worst form of artificial feeding is raw and unclean milk, while the best is any of the brands of modified dried milk. Dried milks are clean and of uniform consistence, while even pasteurised milk may be subsequently contaminated and varied in its constituents. The particular need for safeguards is due to the fact that for practical purposes the infants' sole diet is milk.

(F) DISPENSING OF FOODS, ETC., AT THE CLINIC.

Early in 1937 a Circular received from the Ministry of Health urgently requested Local Authorities to review their arrangements for the supply of milk, cod liver oil, etc., to mothers and children, with a view to augmenting the amounts already given and extending the scheme to toddlers between 1 and 5 years. As a result of the wise decision of the Maternity and Child Welfare Committee to accede to this request, the amount of milk supplied gratis increased considerably as shown below—

	Liquid Milk. Gallons.	Dried Milk. Pounds.
1937	2640	260
1938	3274	1025

The milk was supplied free only in necessitous cases, and in the consideration of these, the scale adopted by the Committee was a sliding one ranging from 4/- to 8/- per head after rent deduction.

The Committee wisely decided that the remedy for prevention of bad nutrition in school children was to prevent its occurrence in infants and toddlers.

The following is a summary of foods, other than liquid milk, supplied through the Maternity and Child Welfare Centre :—

(1) Proprietary Dried Milks	4528 lbs.
(2) Glucose D	952 lbs.
(3) Virol	336 lbs.
(4) Cod Liver Oil, Parrish's, etc.	80 Winchester Quarts.

Apart from gratuitous supplies, considerable quantities, as shown above, of dried milks, cod liver oil, Virol, etc., were dispensed at cost price in necessitous cases where additional supplies were required, or where the case bordered on the necessitous. This course can be defended on the ground that previously these commodities, if obtainable elsewhere to the vast majority were unattainable, and in the conviction that if they were not supplied by the Clinic they would be done without.

HOME VISITING.

The aspect of the work described above, which is particularly valuable and practically universal in operation, necessarily threw considerable additional work on the Health Visitors, which, coupled with further work at the Centre, entailed by the establishment of Routine and Consultative Pre-Natal Clinics, allowed less time for home visiting. The operation of the Dental Clinic, initiated in April, 1938, will to some extent militate further against this most valuable branch of the work—indeed, as the title suggests, home visiting is the primary function of the health visitor. The appointment of the contemplated additional nurse-health visitor is urgently necessary.

HOME VISITATION OF MOTHERS AND INFANTS.

The following table summarises the work of the two health visitors in this branch of welfare work during 1937 compared to 1938 :—

	1937.	1938.
Visits to Expectant Mothers—		
First visits	125	108
Total visits	359	243
Visits to Children under 1 year—		
First visits	407	321
Total visits	4018	2926
Visits to Children 1-5 years—		
Total visits	4903	3714
Special Visits—		
Still-birth Enquiries		12
Infant Deaths		10
Maternal Deaths		2
Infectious Diseases		253
Midwives		17
Maternity Homes		5

INFANT LIFE PROTECTION.

The provisions of the Child Life Protection Sections of the Public Health Act, 1936, were administered through the two Health Visitors, who supervised the care of ten children who are on the Darwen Register as being nursed for reward by six persons.

CONCLUSION.

I desire to place on record my appreciation of the interest shown by the Worshipful the Mayor (Councillor Mrs. Hindle, J.P., Mayor of the Borough for the year 1937-38), and Mrs. Gregory. our present Mayoress and also for their assistance in making the social functions held successful.

Thanks must also be given to (1) the Women's Free Church Council, Blackpool, for again providing four poor mothers with a week's holiday at Blackpool ; (2) the members of the Longfield Women's Institute, Kent, for the many parcels of clothing, etc., received from them for distribution to the needy ; (3) many organisations and individuals who have so kindly forwarded gifts, and (4) to the members of the two local Voluntary (Ladies) Committees for their constant attendance and service at Centres on Clinic days, and for the many grants made by them to necessitous families during the year.

SECTION IV.

SANITARY CIRCUMSTANCES
OF THE AREA.

Sanitary Circumstances of the Area.

WATER.

RESERVOIRS.

Water is supplied on the constant system from the following reservoirs :

Reservoir.	Altitude (above O.D.)	Capacity in Gallons.	Gathering Ground.
Sunnyhurst Hey (open)	920 ft.	96,000,000	662 acres (moorland) situated about two miles from Centre of Town. Supplied from Bolton.
Earnsdale (open)	705 ft.	100,000,000	
Bull Hill (covered)	880 ft.	450,000	

Sunnyhurst, Earnsdale and Bull Hill Reservoirs have a combined capacity of 196,450,000 gallons.

The amount of water consumed for the year 1938 was 298,685,000 gallons, 42,791,000 gallons being for trade purposes. The remainder for domestic use at the rate of 22.0 gallons per head per day.

THE SAND FILTERS.

Those serving Sunnyhurst Reservoir have an aggregate area of 1,970 square yards. The depth of the water resting on the filtering area is usually about three feet. The rate of filtration is $\frac{2}{3}$ gallons per square foot per hour when both are working together.

Earnsdale Reservoir filters have an aggregate area of 1,947 square yards, and the rate of filtration when both are working is $\frac{5}{9}$ ths of a gallon per square foot per hour.

The surface of the sand layer in the filter beds is scraped periodically and clean sand submitted each Spring. At intervals the whole of the filtering media is taken out and cleaned.

SUPPLY.

The approximate number of dwelling-houses supplied direct is 10,662. There is no supply by standpipe, and there is no possibility of contamination in the vicinity of dwelling-houses.

SAMPLING.

Twenty-one samples of water were submitted for Chemical Analysis. of these fourteen were returned as satisfactory, and seven were not satisfactory.

Of the unsatisfactory samples three were taken from the supply to the three houses mentioned in my last report, when abnormal amounts of lead were again revealed recurring in all three samples in such quantities as to warrant action being taken to improve the supply.

The Local Authority have negotiated with the owners with a view to town's water being supplied to the houses. As a result one house has changed over and ceased to use the private supply for drinking purposes.

With respect to the remaining two houses their position is such that pumping arrangements will have to be resorted to, and whilst a pump is already installed to supply houses in the same road, the owners of these two dwellings object or appear to object to the additional cost involved. It is difficult to recommend that they install plant to correct acidity involving considerable expense when there are other possible sources of pollution. Further negotiations will have to be carried out and if these fail the matter will have to be dealt with under statutory powers.

With regard to the remaining unsatisfactory samples, one taken from a farm supply was found to contain matter of vegetable origin. The storage reservoir has now been thoroughly cleaned out and it is hoped that future samples will shew improved results.

In another case a sample was taken from a spring supplying property which is to be included in a Clearance Area under the Housing Act—the sample being procured from a roadside spring shewed organic matter mainly of vegetable origin—the danger arising in this case from surface water pollution which it is difficult to avoid owing to the position of the spring. A trench has been cut around the receptacle in order to reduce the liability to pollution. The sixth sample procured from a private supply to thirteen houses revealed 1/36th grain of lead per gallon on analysis. The owners have received preliminary notice of this and it is anticipated that these houses will shortly be supplied with town's water. The seventh sample was taken from premises situated at a dead-end of the Corporation's main. This fault has been corrected by a flushing of the main.

CIRCULAR 1684. 12th MARCH, 1938.

Of the ten samples taken for Bacteriological examination, five were satisfactory and the five unsatisfactory ones were procured from the Bore Hole following blasting operations. This water is not used for drinking purposes.

SEWERAGE AND DRAINAGE.

There are still 152 pail closets in the district, efforts continue in the hope that at least more septic tank systems may be put into operation. Difficulties arise due to the fact that at many farms private water supplies exist and it is essential that there be no risk of contaminating them.

It is expected that the pail closets used at Darwen Paper Mills will be abolished during 1939, the site of closets being moved to such a position as will admit of drainage to the sewer. These conveniences only form part of the accommodation and at present cannot be drained on account of the river arch interfering with connection to the sewer.

Regarding general drainage work, as stated in the 1937 report, "new and reconstructed drainage systems are tested." The methods adopted by the Surveyor's Department and the Public Health Department are not quite uniform and it is suggested that the standard water test be applied to all new lengths of drains and the smoke test to those repaired.

CLOSET ACCOMMODATION.

Under the provisions of the Public Health Act, 1936, Section 47, it is proposed to reduce the number of waste water closets in the Borough.

On examination many have been found not to have efficient flushing tippers and some, none at all. In closets of this type there is a great tendency to fouling of the shafts with urine and excreta, with consequent decomposition giving rise to a very unpleasant odour, difficult to remove.

Conversion of waste water closets has been progressing steadily for some years, but it is hoped that 400 can be carried out during the financial year ending 31st March, 1940.

The schools where trough closets are installed are to be amongst the first to be dealt with.

The following constitutes the accommodation at the end of the year—

Pails	152
Water Closets	9414
Waste Water Closets	2229
Cesspools	1
<hr/>	
Total	11796
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Conversions and Installations during 1938—

New Water Closets fixed	143
Premises with one New Closet fixed	73
Premises with more than one New Closet fixed	21
Waste Water Closets converted to Water Closets	51
Baths installed during the year	64
Urinals installed during the year	4

Comparative Conversions—	During year.	Five years.
No. of Pail Closets—	1938.	1933-1937.
To Fresh W.C.'s	2	27
To Waste W.C.'s	—	—
No. of Waste W.C.'s to Fresh W.C.'s	51	142

RIVERS AND STREAMS.

Regular examinations of the river have been carried out.

Certain culverts bringing water to the river are receiving special attention because of odours which have from time to time been found to rise through manhole covers. It is expected that the results of inspection with consequent action will be included in the next report.

There was no overflowing of the River during 1938.

Mr. J. C. Almond, the Senior Sanitary Inspector and Cleansing Superintendent, submits the following report of work carried out by the Inspectorial Staff and by the Cleansing Department.

DISTRICT SANITARY INSPECTOR.

Mr. T. W. Marsden, District Sanitary Inspector, who after nearly nine years as a Clerk became a Sanitary Inspector in 1937, resigned during 1938 to take up the position of District Sanitary Inspector to the City of Worcester. He was an energetic officer and I desire to place on record an appreciation of his work.

SANITARY INSPECTION OF THE AREA.

Number of houses visited	1655
Number of houses visited (Housing Consolidated Regulations, 1925).....	88
Number of inspections of Schools	140
Number of inspections of Factories and Workshops	161
Number of inspections of Municipal Hostel	52
Number of inspections of Bakehouses	30
Number of inspections of Dairies and Cowsheds	170
Number of inspections of Refuse Tips	152
Complaints received and investigated	133
Number of re-inspections made	1757
Visits paid to houses (Re cases of Infectious Diseases)	231
Number of houses disinfected	171
Number of articles disinfected	590
Number of smoke observations taken	21
Number of drains, etc., tested	685
Total number of defects discovered	1797
Letters written respecting nuisances	198
Informal notices served	788
Statutory notices served	20
Number of nuisances abated, including outstanding nuisances from previous year	1631
Legal proceedings	2

THE FOLLOWING IS A LIST OF NUISANCES DISCOVERED.

Defective drains	132
Choked sewers	3
Defective soilpipes and water closets	45
Defective downspouts, easing troughs, roofs and external falls	143
Defective plastering	5
Dirty houses and premises	8
Dangerous buildings	7
Dirty and dilapidated closets	3
Accumulations of refuse	97
Defective or uneven gullies	14
Insanitary sinks	4
Defective fire ranges	4
Broken slop-pipes	12
Choked waste water closets	61
Defective tipplers of waste water closets	18
Choked water closets	42
Insanitary yards	5
Defective internal floors	2
Insufficient ventilation	3
Burst water pipes	6
Waste water closets converted to water closets	44
Pail closets converted to water closets	0
Miscellaneous nuisances	65

During the year 186 forms of agreement were signed by owners of property for Corporation workmen to open and repair choked and defective water and waste water closets and do other drainage work. All repairs, etc., were supervised by the Inspectors. Nuisances were abated by owners and occupiers after the service of informal notices except in twenty cases where it was necessary to serve statutory notices, to be followed by legal proceedings in two instances.

SHOPS.

Further progress has been made in relation to shop premises, and substantial improvement is noticed in ventilation and heating. Matters relating to facilities for the taking of meals are receiving attention.

SMOKE ABATEMENT.

Twenty-one observations were taken during the year of emissions from mill chimneys, the co-operation between the department and owners is still good.

There appears to be some difficulty as regards mill owners being able to procure the type of fuel they wish to use in the furnaces.

Warnings were issued to the owners of four mills regarding excessive output of smoke.

The two cases mentioned in the 1937 report have been dealt with.

The owners of one works where grit was being emitted, have installed a grit arresting chamber and the nuisance has been relieved almost entirely. The plant is under observation.

The re-heating furnace at the other factory has been connected to a very tall chimney and the black smoke nuisance has been very much reduced.

As regards domestic smoke abatement, the increase in use of electric and gas appliances for heating and cooking must have a considerable effect in reducing smoke from coal fires.

SWIMMING BATHS AND POOLS.

There is only one Public Swimming Bath in the town. This is of modern construction, erected in 1933, having one large and one small plunge.

The water is treated with Alumina Ferric, with Soda-ash as a base. To ensure the satisfactory condition of the water, it is aerated and also chlorinated by chlorine gas.

Two samples of water were submitted for Bacteriological examination during the year and the results proved to be satisfactory.

The water is tested daily for pH value by the Phenol Red Test and the Tintometer Comparator. Tests are also carried out daily for Chlorine Content.

DISINFESTATION.

Houses found to be infested with Bed Bugs—

Council houses	4
Other houses	29

No. disinfested—

Council houses	4
Other houses	28

Hydro-cyanic acid gas was used in five cases, whilst in others sulphur-dioxide gas was used in combination with very efficient insecticides. Visits were in all cases paid subsequently in order that the recommendations of the Ministry of Health contained in Memo. 180 Med. might be put into effect.

Before any applicant is permitted to move into a Corporation house a visit is paid to the residence which the applicant is to leave. The Sanitary Inspector examines thoroughly all furniture and bedding, together with the general condition of the premises. If, as a result of examination, bugs are found, or their presence suspected, the applicant is classed as unsuitable, and the programme for disinfection put into operation.

With the exception of the use of Hydro-cyanic acid gas, all disinfection is carried out by the Local Authority, in the former case, however, the work is carried out by competent contractors.

In all cases where disinfection has taken place, the premises are re-visited from time to time in order to ensure as far as possible that no re-infestation occurs.

SCHOOLS.

As previously mentioned, it is hoped that in the near future, Schools having trough latrine closets will be provided with water closets having separate flushing cisterns.

HOUSES LET IN LODGINGS.

During 1938 no legal action was necessary. Byelaws were granted to the Corporation in 1929 and these are adequate.

UNDERGROUND SLEEPING ROOMS.

There is no need for regulations as we have no such rooms in Darwen.

TENTS, VANS AND SHEDS.

There are no temporary dwellings in the Borough.

OFFENSIVE TRADES.

The following are established in the district :—1 gut scraper, 2 tripe boilers, 1 fat extractor and 1 lard refiner.

Extensive repairs require to be carried out at the tripe boiling premises which are owned by the Corporation, the alternative being to provide a new building for the purpose.

RAC FLOCK ACTS, 1911 AND 1928.

We have no works to which these Acts are applicable in this District, and bed manufacturers and upholsterers here do not use this material.

INSPECTION OF PUBLIC BUILDINGS.

Attention promised towards the improvement of the air conditions of Public Buildings has had to be left over on account of the work required in connection with A.R.P. organisation.

MUNICIPAL HOSTEL.

During the year there has been an increase of 0.27 in the monthly average number of lodgers compared with 1937. This is the only common lodging house in the town, a distinct advantage from a public health standpoint. The two top rooms, containing 65 cubicles, remained closed during the year.

The following Table shows the daily average number of occupants for each month during the last 10 years—

	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.
Jan.	88.19	80.74	60.48	60.12	56.16	55.51	56.06	53.48	53.80	54.19
Feb.	87.67	74.89	61.21	58.48	56.10	55.89	57.75	52.17	54.14	54.07
March ...	89.32	74.67	66.64	58.58	54.06	56.25	59.29	51.45	55.48	54.83
April	92.30	80.33	65.23	58.43	54.13	53.83	59.66	54.00	58.30	52.80
May	82.83	76.87	61.38	57.64	52.25	54.06	57.38	53.83	54.67	54.70
June	79.10	74.00	61.36	60.73	51.00	53.46	54.42	50.60	54.73	57.80
July	77.54	71.77	63.38	59.80	49.12	52.19	58.35	54.35	53.29	55.54
August ...	70.09	67.03	59.09	55.67	50.64	52.16	52.74	52.35	53.09	52.16
Sept.	78.03	65.53	56.63	55.00	50.93	53.83	48.33	51.06	52.56	53.26
October . .	80.19	61.35	57.48	56.61	54.32	53.25	50.35	51.32	51.80	53.22
Nov.	78.16	58.23	55.66	58.70	53.26	52.20	52.33	52.76	54.16	56.06
Dec.	79.41	59.09	58.16	59.58	58.35	53.03	53.67	51.41	54.29	54.90
Average ...	81.98	70.37	60.55	58.27	53.36	53.80	55.02	52.39	54.19	54.46

The daily average number of female lodgers for 1937 was 6.04 as against 5.93 during the ensuing year.

FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

I.—INSPECTIONS for purposes of provisions as to health, including Inspections made by Sanitary Inspector.

Premises.	Inspections.	Number of Written Notices.	Number of Prosecu- tions.
Factories with mechanical power	128	3	—
Factories without mechanical power	63	3	—
Other Premises under the Act (including works of building and engineering construction but not including outworkers' premises).....	—	—	—
Total	191	6	—

II.—DEFECTS FOUND.

Particulars	Number of Defects.			No. of defects in respect of which Prosecu- tions were instituted.
	Found.	Remedied.	Referred to H.M. Inspector.	
(1)	(2)	(3)	(4)	(5)
Want of cleanliness (S.1)	2	2	—	—
Overcrowding (S.2)	—	—	—	—
Unreasonable temperature (S.3)	—	—	—	—
Inadequate ventilation (S.4)	—	—	—	—
Ineffective drainage of floors (S.6)	—	—	—	—
Sanitary Conveniences—				
Insufficient	1	1	—	—
Unsuitable or defective	16	16	—	—
Not separate for sexes	—	—	—	—
Other offences	8	8	—	—
(Not including offences relating to Home Work or offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921, and re-enacted in the Third Schedule to the Factories Act, 1937.)				
Total	27	27	—	—

III.—HOME WORK. Nil.

IV.—REGISTERED FACTORIES.

Factories on the Register (S.8) at the end of the year 423

V.—OTHER MATTERS.

Matters Notified to H.M. Inspector of Factories.

Class.	Number.
Failure to affix Abstract of the Factory and Workshops Act (S.128)	0
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory Acts (S.5)—	
Notified by H.M. Inspector	2
Reports of action taken sent to H.M. Inspector	2
Other	0
Underground Bakehouses (S.54)—	
In use at the end of the year	3

OPEN SPACES.

The Borough Engineer has supplied the following particulars—

Public Parks—

Whitehall	16.25	acres.
Bold Venture	18.5	,,
Sunnyhurst	49.5	,,
	<hr/>	
	84.25	,,
	<hr/>	

Corporation Recreation Grounds—

Blacksnape	35.25	acres.
Olive Lane	1.57	,,
Everton Street	0.853	.
Rosehill	13.513	,,
Cross Street	0.65	,,
	<hr/>	
	51.836	,,
	<hr/>	

Allotments—

Rented	7.0	acres.
Held for other purposes but used as allotments.....	5.0	,,
Let by private owners	12.0	,,
	<hr/>	
	24.0	,,
	<hr/>	

In addition to the above there are the Moors, which are traversed by public footpaths.

The children using the Recreation Grounds are free from the dangers of the roadways.

NOTABLE SANITARY IMPROVEMENTS.

There have been no outstanding sanitary improvements during the year.

CHIEF SANITARY REQUIREMENTS OF THE DISTRICT.

Reduction in number of private water supplies required and is receiving attention.

Repaving of more back streets necessary.

The uncleared sites of demolished or partially demolished factories give rise to nuisance from indiscriminate dumping of rubbish. Sites should be cleared of all masonry, left level, and be properly fenced.

PUBLIC CLEANSING.

The whole of the above service which includes collection and disposal of house refuse, and cleansing of streets is under the control of the Public Health Department.

All refuse receptacles are the property of the Corporation, owners paying 10/- per bin, supplied to the premises and thereafter renewal is effected as required. Each bin is dated with year of issue thereby giving an indication of the length of time the bin lasts in service.

There are 11,765 bins in use in the Borough.

TRADE REFUSE.

Previous to 1937 all refuse from shops, etc., was collected and disposed of free of charge, but since the Public Health Act, 1936, requires that Local Authorities who undertake removal of trade refuse "shall make a charge," special consideration was given to the matter and in co-operation with the Borough Treasurer, it was eventually decided to charge 1d. for each receptacle emptied in excess of one per week, at business premises, it being taken that one bin would accommodate any domestic refuse from office fires, etc. Larger quantities of refuse are dealt with at load rates.

The system of collection of fees devised consists of books of tickets which are purchased by trades people. When bins are emptied a ticket is collected and a receipt tickets given in exchange to the owner of the premises.

ORGANISATION OF SERVICE AND DEPOT.

Under the direction of the Senior Sanitary Inspector who acts as Cleansing Superintendent, the re-organisation of the department has been almost completed within a period of three years.

All transport is now mechanical, there being five motor vehicles in service as follows—1 Morris 30 cwt. (6 cubic yard body), 1 Scammell (6 cubic yard), 2 S. and D. Freighters (7 cubic yard and 8 cubic yard respectively), are used for house refuse collection, whilst an S. and D. Freighter with interchangeable body equipment is used for collection of shop refuse and emptying of street gullies.

It is proposed to purchase a further Scammel three-wheel self-contained vehicle to replace the Morris wagon, which will be retained for use in case of breakdown of any vehicle, to assist in snow removal or defrosting of roads, and to enable the post holiday peak refuse collection to be carried out smoothly. It will also be found of great service at the Controlled Tip.

Modern Garages have been constructed during the last three years by using the one storey stables and loose boxes.

The remainder of the Depot is being steadily reconditioned, dust bin, petrol, oil and equipment stores have already been provided, together with an excellent mess-room for the men, and a garden has been laid out at the rear of the premises where formerly accumulations of scrap metal and dilapidated equipment lay.

Large salt and sand stores have been provided, there being a quick loading chute for salt distributing vehicles.

The sand store also provides shelter for street orderly trucks, the lifting gear for body change-over, and the 500 gallon petrol storage tank.

SNOW REMOVAL AND DEFROSTING OF ROADS.

For dealing with wintery conditions three double throw gritters are provided, whilst at the beginning of 1938 a Bunce snowplough was fitted to the Scammel, self-contained three-wheel vehicle, this being the first snowplough of the kind in the country to be fitted to a three-wheeled vehicle. In operation this particular equipment has exceeded expectation, a gritter is attached during light falls of snow and distributes grit and salt on to the cleared roadway. Later in 1938 a squeegee blade was procured for use on the plough to remove the partially melted snow from the main thoroughfares. This was decided upon as a result of experiment with a mechanically drawn improvised squeegee which worked quite well. Key men are still organised to deal with urgent requirements arising from wintery conditions when the ordinary staff is off duty at night-time.

GULLY EMPTYING.

The use of the mechanical gully emptier purchased in early September, has been a great improvement on the old horse-drawn tank and scoop method, sewer flushing, channel washing and suction equipment have also been found most useful ; the vehicle will doubtless be found of service in other directions.

REFUSE DISPOSAL.

As regards refuse disposal, the destructor was found to require very urgent repairs during the summer, and owing to the extensive nature of same, the Committee were recommended to adopt controlled tipping for a test period of twelve months, which commenced in September.

The site chosen was Grainings Tip, used previously for the reception of destructor clinker.

Four men are employed permanently and the men were trained by the Cleansing Superintendent. Two of the men were previously stokers at the destructor, the other two being ashes loaders. There is ample covering material on site. This sand is a boon and effects a great economy in covering costs.

The result of the experiment will be reported upon at the end of the period fixed. The distance to the tip is one which can be overcome by the use of possible alternative sites. This would reduce wear and tear on vehicles which now have to travel up an incline for a considerable distance when loaded.

STREET CLEANSING AND LITTER.

The beat system of street orderlies is in use, (two bin) pneumatic tyre trucks are employed. The type of truck is far from ideal in use on steep inclines, although a low chassis is used. Further experiments will be conducted in the hope that a single container integral with the chassis can be used still maintaining the low axle position, tests carried out are encouraging, standard manufactured trucks are not, in the opinion of the Superintendent, constructed on energy-saving lines and are most unsightly.

Weeds growing in the crevices between paving stones are a source of great trouble. Three men are engaged full-time, except during frost and snowfalls, in raking out these weeds, but such a means is very temporary. Tests with chemicals have so far been yielding poor results.

Re-paving and grouting with pitch or bitumen after disturbing the roots of weeds seems to offer the most lasting solution.

Ninety-five litter bins, designed and made locally, have been installed on bus and tram routes, and it is very pleasing to note the co-operation of the general public in the use of these receptacles.

Ticket boxes provided on buses and trams are of great value in assisting the department in the endeavour to reduce litter.

SUMMARY.

The following is a summary of the work done during 1938. It will be noted that the weights given below are estimated.

	Tons.	cwts.	qrs.
House Refuse to Destructor and Tip (5501 loads)	7358	1	0
Market and Trade Refuse to Destructor and Tip (1404 loads)	694	15	0
Receptacles (House Refuse)	540366		
Receptacles (Trade Refuse)	22420		
Clinker Removed from Destructor	2592	Tons	
Excreta	15½	Loads	
Excreta Pails Emptied	5353		
Sludge from Street Gullies	1186	Loads	
Street Gullies Emptied	34336		
Sweepings from Streets	*110	Loads	
Sweepings : Bins from Street Orderly Trucks	17536		
Miles of Street Swept	3872		
Salt Distributed on Streets	30	Tons	
Grit Distributed on Streets	Nil		
Length of Streets Salted or Gritted	180	Miles	
Snow Removed from Streets	4	Loads	
Dust Bins added during the year	41		
Number of Portable Refuse Receptacles	11765		

* This low figure is explained by the fact that almost the whole of the sweepings contained in orderly trucks is collected by house refuse vehicles and not recorded separately.

PUBLIC CONVENIENCES.

The fourteen public urinals are cleansed daily, a whole time caretaker, together with his wife acting as Lady Attendant, supervise Public Conveniences situated at Belgrave Square. Those at the Public Market Hall and Ground are under the supervision of the Market Attendants.

LETHAL CHAMBER.

This apparatus provided for destroying animals painlessly is installed at the Cleansing Depot, a charge of 1/- or 6d. being made for dogs and cats respectively.

During the year the following were dealt with—

Dogs	301
Cats	40
	<hr/>
	341
	<hr/>

Coal gas is used as the lethal medium.

SECTION V.

HOUSING.

HOUSING.

STATISTICS.

Number of new houses erected during the year —

(a) Total (including numbers given separately under (b)	9
(i) By the Local Authority	0
(ii) By other Local Authorities	0
(iii) By other bodies and persons	9
(b) With State assistance under the Housing Acts—	
(i) By the Local Authority	0
(ii) By other bodies or persons	0

1. *Inspection of Dwelling-houses during the year—*

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	1655
(b) Number of inspections made for the purpose	3412
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 and 1932	88
(b) Number of inspections made for the purpose	250
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	183
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	88

2. *Remedy of Defects during the Year without Service of Formal Notices—*

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers.....	78
--	----

3. *Action under Statutory Powers during the year—*

A.—Proceedings under Sections 9, 10 and 16 of the Housing Act, 1936—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	4
(2) Number of dwelling-houses which were rendered fit after service of formal notices—	
(a) By Owners	11
(b) By Local Authority in default of owners	0

B.—Proceedings under Public Health Acts—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	0
(2) Number of dwelling-houses in which defects were remedied after service of formal notices—	
(a) By Owners	0
(b) By Local Authority in default of owners	0

C.—Proceedings under Sections 11 and 13 of the Housing Act, 1936—

(1) Number of dwelling-houses in respect of which Demolition Orders were made	0
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	0

D.—Proceedings under Section 12 of the Housing Act, 1936—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made	1
(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit	0

4.—*Housing Act, 1936—Part IV.—Overcrowding—*

(a)	(i)	Number of dwellings overcrowded at end of year	3
	(ii)	Number of families dwelling therein	3
	(iii)	Number of persons dwelling therein	20
(b)		Number of new cases of overcrowding reported during year	1
(c)	(i)	Number of cases of overcrowding relieved during year	3
	(ii)	Number of persons concerned in such cases	22

GENERAL OBSERVATIONS AS TO HOUSING CONDITIONS.

The majority of the houses in the Borough are in street formation, with separate yard space at the rear and are of the four-room type. Dampness is the prevailing defect and it is to be noted that about 5 per cent. of the houses are over 100 years old.

There are no back-to-back houses in the Borough.

SUFFICIENCY OF SUPPLY OF HOUSES.

There is sufficiency of supply of houses, there being several empty properties, due to a great extent to the decreasing population.

OVERCROWDING.

The incidence is still very low, as will be seen by the figures shewn in Part IV. above.

The number of houses of suitable size which are unoccupied provide accommodation necessary to relieve such families as become overcrowded.

FITNESS OF HOUSES.

The inspection of houses of the Working Classes continues, and in most cases where defects are discovered, informal action has been successful in securing the required repairs. In all cases where defects exist, a specification of the work required is forwarded with the informal notice ; this appears to

have met with general approval from property owners, as they are able to hand this directly to a contractor for his use in tendering. Brief extracts from byelaws which might be of assistance to owner or builder are also forwarded as occasion requires. The quality of workmanship steadily improves, and this is regarded as a satisfactory result of co-operation with owners and contractors.

Houses having joint closet accommodation or pail closets are receiving attention. Every opportunity will continue to be used to provide fresh water closets for each house. Those having pail closets present some difficulty, but many will disappear in certain instances as a result of demolition of houses.

Improvements have been carried out during the year to several houses previously having an inadequate internal water supply, and the others are being dealt with as opportunity arises.

UNHEALTHY AREAS.

A further number of unfit houses require to be dealt with. This programme has been held back as a result of A.R.P. organisation requirements.

BYELAWS RELATING TO HOUSES, ETC.

The present Byelaws have proved to be adequate.

GENERAL OBSERVATIONS.

No difficulties have been experienced in housing administration.

SECTION VI

INSPECTION AND
SUPERVISION OF FOOD.

Inspection and Supervision of Food.

MILK SUPPLY.

Work in this direction has been restricted during the year but progress has been made with schemes to bring several farms up to accredited standard.

It is again noted with regret that the practice by farmers of using the saloon type of motor-car for the distribution of milk is continuing. By reason of the construction of such a vehicle the adequate cleansing of the interior is almost impossible, and the time cannot be far distant when the use of such a vehicle will have to be restricted.

There were 70 cowkeepers owning approximately 850 cows on the register during 1938, and 170 retail purveyors of milk other than cowkeepers.

The number of inspections made during the year was 170.

The cleanliness of shippens, dairies, and the utensils have been noted and where any doubt existed instructions and warnings were given.

One farm house was rebuilt and plans submitted for new buildings the approximate cost of the work completed at end of year being £350.

More work must be carried out as regards improvement to farms in order to raise the general standard to that required for the production of Accredited Milk. The farms owned by the Corporation in the Borough do not come up to this standard, and the Local Authority should give a lead in provision of improved buildings and amenities.

SAMPLING.

Particular attention has been devoted to examination of milk supplied to infants and school children.

Six samples were submitted for examination for the presence of Tuberculosis, and in each case the result was negative.

Seven samples were submitted for Bacteriological Examination of which two were satisfactory and five unsatisfactory.

Ten samples were submitted to the sediment test of which six were satisfactory and four unsatisfactory.

The appropriate action was taken in respect of the unsatisfactory samples, by way of advice, and re-inspection.

DISEASES OF ANIMALS ACTS.

When required, the Veterinary Surgeon is called in to inspect dairy cows. The number of cows examined by him was thirty-three, and none were found to be suffering from Tuberculosis.

MEAT AND OTHER FOODS.

Shops, stores, market stalls, vehicles and places where food is prepared, are under the control of the Inspectors. The premises are visited regularly and strict supervision maintained.

Market stalls used for the sale of meat continue to be under supervision. Attention is given to those stalls exposing fowl for sale. The use of glass shields on the front of meat stalls has been continued, these should be extended to all food stalls.

There have been no cases of food poisoning during the year.

All animals were killed at the Public Abattoirs, where there is ample lairage and slaughtering accommodation. Supervision was maintained throughout the year ; the slaughtering was carried out in accordance with the provisions of the Slaughter of Animals Act, 1933, and in as expeditious and humane manner as possible. Further improvements to the Abattoir buildings have been carried out during the year at a cost of £278 14s. 1d.

The following table shews the number of animals slaughtered at the Public Abattoirs during this and the preceding year :—

	BEASTS.		SHEEP AND LAMBS		CALVES		PIGS		TOTAL	
	1938	1937	1938	1937	1938	1937	1938	1937	1938	1937
January.....	90	128	699	827	2	3	29	46	820	1004
February	96	122	691	750	2	11	6	15	795	898
March	86	108	641	630	—	11	6	19	733	768
April.....	102	105	812	686	7	3	24	24	945	818
May	82	69	698	546	1	—	31	25	812	640
June	71	79	635	749	—	—	24	25	730	853
July	66	55	780	640	—	3	8	6	854	704
August	63	58	815	611	—	—	31	22	909	691
September	105	89	1039	867	4	5	33	19	1181	980
October ...	94	96	863	842	—	4	51	22	1008	964
November	95	98	1013	851	1	4	28	26	1137	979
December	122	114	1071	862	4	2	57	61	1254	1039
Total	1072	1121	9757	8861	21	46	328	310	11178	10338

The total amount of meat condemned and destroyed during the year under review was as follows:—

	BEASTS	SHEEP & LAMBS	CALVES	PIGS
<i>All Diseases except Tuberculosis —</i>				
Whole Carcases Condemned	—	1	—	—
Carcases of which some part or organ was Condemned... ..	80	21	—	2
Percentage of the number inspected affected with disease other than Tuberculosis	7.4	0.2	—	0.6
<i>Tuberculosis Only —</i>				
Whole Carcases Condemned	3	—	—	2
Carcases of which some part or organ was Condemned	92	—	—	66
Percentage of the number inspected affected with Tuberculosis	8.5	—	—	20

On the occasions when it was found necessary to slaughter animals after the usual hours, either during the evenings or week-ends, an Inspector attended at the Abattoir.

FOOD AND DRUGS (ADULTERATION) ACT, 1928.

The County Police have from time to time taken samples as Officers under the Act within the Borough. It was intended that samples should be taken by the Local Authorities Inspectorial Staff, but owing to pressure of other duties, this has not been found possible. Also no action has been taken during the year in respect of the other food regulations.

CHEMICAL AND BACTERIOLOGICAL EXAMINATION OF FOOD.

No action has been taken in respect of the chemical and bacteriological examination of food (excluding milk).

BAKEHOUSES.

There are 117 bakehouses in the Borough. The premises have been regularly inspected, and on the whole can be considered to be in a satisfactory condition. One underground bakehouse is to be certified as unfit during 1939.

RATS AND MICE DESTRUCTION ACT, 1919.

In cases where reports of infestation were received, the premises were visited and detailed examinations made. In certain instances special smoke rockets were used to trace runs, and in an endeavour to exterminate the rodents. The results have not in all cases been entirely satisfactory.

During National Rat Week, literature was forwarded to 172 occupiers of premises likely to be most affected, with the following summary of the results returned by such occupiers—

At 18 premises the number of Rats killed during the week was—

Number Baited (Harley's Rodine)	23
Number trapped	2
Number killed by dog, ferret or cat	91
Other methods	3
	<hr/>
Total	119
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From 72 premises returns were received claiming them to be free from rats, and from 62 premises no information was received.

SECTION VII.

PREVALENCE AND CONTROL
OF
INFECTIOUS DISEASES.

Prevalence and Control of Infectious Diseases.

The age incidence of Infectious Diseases other than Tuberculosis is shown in the following table which includes particulars of Darwen cases removed to hospital and mortality from these diseases.

What are termed the Minor Infectious Diseases, *i.e.*, Measles, Whooping Cough and Chicken-pox, are not included in the table as they are not Notifiable Diseases in Darwen and therefore statistics as to their prevalence are not available.

PREVALENCE OF NOTIFIABLE DISEASES (OTHER THAN TUBERCULOSIS), 1938.

TABLE I.

DISEASE.	CASES NOTIFIED.														Total Deaths	Hospital.	
	Total Cases at all Ages.	YEARS.														Total Cases removed to Hospital	Deaths in Hospital of persons belonging to district.
		Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 35	35 to 45	45 to 65	65 and over				
Smallpox
Scarlet Fever	79	...	1	3	6	3	49	10	2	4	...	1	...	...	72	...
Diphtheria, including Membranous Croup	97	...	...	3	7	5	10	28	4	6	4	...	...	...	94	3
Enteric Fever (including Paratyphoid) ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Primary Pneumonia	6	...	...	...	...	...	...	1	1	1	1	2	...	...	1	...
Acute Influenzal Pneumonia	11	...	...	...	...	...	...	...	1	10	...	...	...	...	...	...
Puerperal Pyrexia .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Poliomyelitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Polio-encepha- litis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Encephalitis Lethargica ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dysentery ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ophthalmia Neonatorum	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	6	...	...	...	...	...	...	1	...	...	...	2	3	...	...	...
Malaria ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles and Broncho Pneumonia ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...
Totals... ..	202	3	1	6	13	8	89	40	8	21	5	4	4	...	169	3	

It will be observed that Scarlet Fever and Diphtheria are the most prevalent and this follows the experience of past years. The other infections notified were Pneumonia, Puerperal Pyrexia, Ophthalmia Neonatorum and Erysipelas. The comparative incidence of these diseases during the past five years is shown overleaf—

TABLE II.

Disease.	1938	1937	1936	1935	1934
Scarlet Fever	79	41	119	212	260
Diphtheria	97	61	57	136	8
Pneumonia	6	34	27	15	14
{ Puerperal Fever.....	...	...	1	2	4
{ Puerperal Pyrexia ...	11	3	...	6	6
Cerebro-Spinal Fever	...	1	...	...	...
Acute Poliomyelitis...	...	1	...	...	...
Ophthalmia					
Neonatorum ...	3	1	2	5	2
Erysipelas	6	5	5	10	7
Total	202	147	238	408	360

WARD INCIDENCE.

TABLE SHEWING WARD INCIDENCE OF THE MORE PREVALENT INFECTIOUS DISEASES DURING 1938 AND THE PAST TEN YEARS.

	1928						1929						1930					
	C.	W.C	N.E.	N.W	S.E.	S.W	C.	W.C	N.E.	N.W	S.E.	S.W	C.	W.C	N.E.	N.W	S.E.	S.W.
Scarlet Fever...	2	8	3	2	4	...	5	10	10	12	11	6	7	...	20	13	36	26
Diphtheria ...	...	...	1	1	...	...	6	14	4	4	9	9	17	20	8	14	14	25
Pneumonia	23	7	21	13	16	12	11	12	10	13	18	8	15	6	14	12	11	9
Puerperal Pyr.																		
and Fever	1	...	3	3	1	...	1	2	3	4	2	...	2	1	1	3	2	5
Erysipelas ...	3	1	5	1	1	...	1	...	2	3	3	2	1	1	1	2	3	5

	1931						1932						1933					
	C.	W.C	N.E.	N.W	S.E.	S.W	C.	W.C	N.E.	N.W	S.E.	S.W	C.	W.C	N.E.	N.W	S.E.	S.W.
Scarlet Fever...	5	7	17	14	3	8	6	8	9	6	2	6	52	13	70	30	35	30
Diphtheria	5	5	10	14	12	6	2	1	1	6	3	1	5	3	9	...	7	5
Pneumonia	3	3	9	8	9	4	5	4	5	7	11	6	1	5	11	5	6	5
Puerperal Pyr.																		
and Fever	1	...	2	1	1	...	2	...	1	1	2	1	2	1	1	...	2	1
Erysipelas .....	...	...	2	1	1	4	1	...	1	4	1	1	1	2	...	2	2	1

	1934						1935						1936					
	C.	W.C	N.E.	N.W	S.E.	S.W	C.	W.C	N.E.	N.W	S.E.	S.W	C.	W.C	N.E.	N.W	S.E.	S.W.
Scarlet Fever...	42	32	50	48	44	44	41	15	36	25	57	38	27	9	42	14	20	7
Diphtheria .....	...	2	...	..	3	3	19	16	20	17	40	24	3	5	7	6	16	20
Pneumonia	1	2	3	2	2	4	...	1	3	2	5	5	4	2	2	2	8	9
Puerperal Pyr.																		
and Fever	2	...	2	...	5	1	...	1	...	...	4	3	...	...	...	...	...	1
Erysipelas ...	1	1	...	2	1	2	1	2	1	1	2	3	1	1	1	1	1	...

	1937						1938					
	C.	W.C	N.E.	N.W	S.E.	S.W	C.	W.C	N.E.	N.W	S.E.	S.W.
Scarlet Fever .	5	4	8	9	10	5	13	3	21	16	18	8
Diphtheria	11	2	27	4	11	6	26	12	23	6	25	5
Pneumonia	9	2	3	2	7	11	...	1	1	...	1	3
Puerperal Pyr.												
and Fever	1	...	1	...	1	...	...	2	2	1	3	3
Erysipelas	1	...	2	...	1	1	1	...	1	1	2	1

SCARLET FEVER.

Seventy-eight per cent. of the cases occurred in the age group 0—5 years.

MORTALITY.

There were no deaths from Scarlet Fever during 1938.

DIPHTHERIA.

INCIDENCE.

There were 97 cases compared with 61 in 1937, and 57 in 1936 ; 70 per cent. occurring in the age group 5—10 years.

TYPE OF DISEASE.

There was no outstanding feature as regards the type of infection beyond the fact that cases generally were very mild or very severe. It would appear that some of the mild cases were really examples of tonsillitis occurring in Diphtheria carriers, while a few were merely examples of bacteriological infection without clinical symptoms but not true Diphtheria.

MORTALITY.

There were three deaths from Diphtheria during 1938.

DIPHTHERIA IMMUNISATION.

As mentioned in the School Medical Report for 1937, considerable attention was paid to the prevention of Diphtheria by Immunisation of infants, toddlers and schoolchildren. While the immediate response was very satisfactory and resulted in the inoculation of 883 cases in that year, by the Health Department, since then considerable apathy on the part of the public has been experienced (in spite of continued propaganda), due no doubt to a false sense of security arising from the absence of the disease except in sporadic instances.

Immunisation has now passed the experimental stage : its technique has almost been perfected and the results so successful that there is a strong case for universal adoption. As an interval varying in individuals from three to six months is required to develop immunity after inoculation, the

optimum time to secure protection is not during epidemics or seasonal incidence, but in the interim. The Report of the British Medical Association Committee on Immunisation states that while "publicity campaigns are the function of the local authority, the general medical practitioner can do more than anyone else to educate the public in this matter."

The technique of immunisation adopted in Darwen was the modern one of a single injection of alum-precipitated toxoid as opposed to the older method of three injections at fortnightly intervals which had the disadvantage of being cumbersome and resulted in some children not completing treatment. There is considerable evidence recently that the best method for efficacy of protection and economy of time is the division of the immunising dose into two fractions, the larger portion being received two or three weeks later. This method was adopted during 1938 and met with a very poor response, only 220 school children and 11 pre-school children being immunised.

Scarlet Fever cases prior to discharge from hospital and with the permission of the parents are immunised.

PUERPERAL PYREXIA.

INCIDENCE.

The Public Health Act, 1936, stipulates that Puerperal Fever should be no longer notifiable as a separate entity, but as Puerperal Pyrexia. The reason for this change is that there was some evidence that cases of Puerperal Pyrexia were frequently not notified unless and until the condition revealed itself as the more serious one of Puerperal Fever, much valuable time being meanwhile wasted. The revised method aims at securing immediate notification of any case in which there occurs over a period of 24 hours or recurs during that period, a temperature of 100.4 or over.

MORTALITY.

There was one death due to Puerperal Sepsis during 1938.

OPHTHALMIA NEONATORUM.

It may not appear satisfactory to note that there were three notifications of this disease—Suppurative Inflammation in the eyes of the new-born—an increase of two on the previous year. Of the three cases notified each of which received treatment at home, there was no impairment of vision.

OTHER INFECTIOUS DISEASES.

The incidence of Pneumonia and Erysipelas does not call for any comment.

PROVISION FOR SMALLPOX.

Under the County Scheme, Darwen's provision for Smallpox was increased during the year from three to four beds which are retained in Finnington Hospital, Blackburn, the annual cost rising from £60 to £80.

There have not been any notifications of Smallpox since 1907. One important result of this desirable state of affairs is the consistent decrease in the number of children vaccinated—a further example of public apathy and a want of appreciation of the elements of prevention.

The following table exemplifies the decrease in vaccination during the past 10 years—

RETURN OF VACCINATION FOR THE PAST 10 YEARS.

Year	Births	Successfully Vaccinated	Rate per cent Vaccinated
1929	489	128	26.18
1930	438	96	21.91
1931	413	101	24.45
1932	398	82	20.60
1933	359	80	22.28
1934	377	85	22.54
1935	371	59	15.90
1936	354	67	16.10
1937	343	61	17.78
1938	301	69	22.92

BULL HILL HOSPITAL.

There was no change in the arrangements by which cases of infectious disease are received at Bull Hill Hospital from Turton, Oswaldtwistle, Blackburn and Blackburn R.D. Only in the case of Turton, however, is a retaining fee paid—£50 per annum for eight beds.

The following table gives particulars of the cases admitted during 1938 from Darwen and the other authorities—

DARWEN.

	No. of Cases in at 1/1/38	No. of Cases		Mortality	No. of Cases Remaining in at 31/12/38
		Admitted	Discharged		
Scarlet Fever	4	72	62	...	14
Diphtheria	9	94	94	3	9
Pneumonia	1	1
Measles & Pneumonia	...	1	1
Measles	1	1

TURTON.

Scarlet Fever	3	20	20	...	1
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OSWALD TWISTLE.

Diphtheria	1	11	12	2	...
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BLACKBURN RURAL DISTRICT.

Scarlet Fever	16	16
Diphtheria	1	5	5	1	1

CLAYTON-LE-MOORS.

Diphtheria.....	...	2	2
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NURSING.

HEALTH OF STAFF.

The health of the Nursing Staff was uniformly good during the year.

It is the practice to immunise new probationer nurses against Diphtheria if necessary.

STAFF SHORTAGE.

Very considerable difficulty was experienced during 1938 in keeping the Nursing Staff up to normal strength which, in addition to Matron, consists of one Sister, two Fever-trained Nurses and four Probationers. This shortage is not confined to Darwen, is universal, and has gradually become acute over a number of years. The position, however, is more urgent in the smaller fever hospitals like Bull Hill, which not being recognised Training

Schools fail to attract probationers. Again depletion of a small staff is obviously a greater problem than in the large hospitals where the increased duties necessitated can be spread over a larger personnel.

TUBERCULOSIS.

The Tuberculosis Scheme is administered by the County, but the Area Tuberculosis Officer and Nurse maintain close co-operation with the Darwen Health Department to which is furnished particulars about housing conditions and environment generally and by which the necessary disinfection is carried out.

The following table shows the age group incidence of new cases of Tuberculosis notified and the deaths from the disease during 1938.

Age Periods.			New Cases.				DEATHS			
			Respiratory.		Non-Respiratory.		Respiratory.		Non-Respiratory	
			M.	F.	M.	F.	M.	F.	M.	F.
Years.										
0—1...	...	...	...	...	...	...	...	...	...	...
1—5...	...	...	...	...	...	...	...	...	...	...
5—10	...	...	...	...	1	...	...	...	...	...
10—15	...	...	...	...	...	...	...	...	...	...
15—20	...	...	2	3	...	1	...	2	...	...
20—25	...	...	2	1	1	1	2	...	1	...
25—35	...	...	3	2	...	...	3	2	...	...
35—45	...	...	3	...	...	...	2	...	...	...
45—55	...	...	1	1	1	...	2	1	...	...
55—65	...	...	2	2	...	1	3	1	...	1
65 and upwards	...	...	...	...	...	...	...	...	...	...
.....			...	...	...	...	...	-1*	+1*	...
Totals	...	...	13	9	3	3	12	5	2	1
			22		6		17		3	

* Adjusted to agree with Registrar-General's figure.

OCCUPATIONAL INCIDENCE.

There is no evidence of excessive incidence or mortality from Tuberculosis in any particular occupation in Darwen.

WARD INCIDENCE.

The following table shows the incidence of Tuberculosis during the past 10 years classified as to Wards.

	Central	West-Central	North-East	North-West	South-East	South-West
1929	6	2	5	4	5	4
1930	0	1	2	8	8	5
1931	3	2	4	4	3	6
1932	3	1	2	2	1	5
1933	5	0	7	5	6	3
1934	6	1	5	2	5	5
1935	4	0	6	4	4	3
1936	6	3	5	6	4	3
1937	6	3	1	5	5	5
1938	2	2	4	8	8	4
Total	41	15	41	48	49	43

PREVENTION OF BLINDNESS.

The Public Health (Ophthalmia Neonatorum) Amendment Regulations, 1937, requires notification of cases to be made by the notifying practitioner direct to the Medical Officer of Health of the Local Authority.

Every opportunity is taken to impress upon midwives the need for careful prophylaxis of the eyes of the new-born and the necessity for renewing eye-drops at least once per month.

Facilities exist for the admission of cases of Ophthalmia Neonatorum into hospital under the care of an Ophthalmic Surgeon.

The services of the Ophthalmic Surgeon appointed to the Education Committee are available to pre-school children and treatment is provided where necessary at the School Clinic. Some cases of slight external eye conditions are treated at the welfare centre minor ailments clinic for pre-school children held daily.

SECTION VIII.

METEOROLOGY.

Meteorology.

The Meteorological Observatory is at Bold Venture Park in Lat. $53^{\circ} 41' 25''$ N., and Lon. $2^{\circ} 28' 32''$ W., and is at an altitude of 728 feet above mean sea level.

Observations are taken twice daily at 9 a.m. and 9 p.m.

This station is connected with the Meteorological Office, and is called a Normal Climatological Station. A report, giving all details of readings, is sent each month to the Meteorological Office, London.

The total rainfall for the year was 1575.9 millimetres, or 62.04 inches being recorded on 261 days ; the average for the last twenty years being 55.89 inches. The greatest monthly fall was in October, 287.8 millimetres ; and the lowest in April, 22.3 millimetres. The greatest daily fall was 50.4 millimetres, on December 31st.

The total sunshine registered on 278 days during the year was 1139.1 hours, the average for twenty years is 1138.6 hours. May registered the highest monthly total, 173.4 hours ; and December the lowest, 13.6 hours. The highest daily reading was 13.5 hours on June 13th.

The mean minimum temperature in shade was 41.9° , the average for the last twenty years is 40.9° . The lowest monthly mean was in December 36.9° , and the lowest reading for the year 19.0° on December 20th.

A maximum wind velocity of 49 miles per hour was recorded on the 29th January, direction W.

Twenty observations of snow, 12 observations of snow lying, 21 observations of fog, 78 observations of ground frost, 13 observations of hail, 12 observations of thunder, 11 observations of thunder and lightning, 4 observations of rainbows, 8 observations of dry air, 23 observations of dew, and sleet on 8 occasions.

MEAN METEOROLOGICAL READINGS FOR 1937 AND 1938.

[illegible]

APPENDICES.

APPENDIX I.

CAUSES OF DEATH IN DARWEN, M.B., 1938.

Causes of Death (Civilians only).	Males.	Females.
All Causes	248	255
1. Typhoid Fever, etc.	0	0
2. Measles	1	0
3. Scarlet Fever	0	0
4. Whooping Cough	0	0
5. Diphtheria	1	1
6. Influenza	1	2
7. Encephalitis Lethargica	0	0
8. Cerebro-Spinal Fever	0	0
9. Respiratory Tuberculosis	12	5
10. Other Tuberculosis	2	1
11. Syphilis	0	0
12. General Paralysis of the Insane, etc.	0	0
13. Cancer	33	51
14. Diabetes	2	5
15. Cerebral Hæmorrhage	15	24
16. Heart Disease	79	68
17. Aneurysm	0	1
18. Other Circulatory Diseases	28	16
19. Bronchitis	3	2
20. Pneumonia	12	10
21. Other Respiratory Diseases	4	1
22. Peptic Ulcer	1	0
23. Diarrhœa etc. (under 2 years)	0	0
24. Appendicitis	1	1
25. Cirrhosis of Liver	0	0
26. Other Liver Diseases	1	3
27. Other Digestive Diseases	2	5
28. Nephritis	15	11
29. Puerperal Sepsis	0	1
30. Other Puerperal Diseases	0	2
31. Congenital Debility : Premature Birth etc.	6	9
32. Senility	1	6
33. Suicide	3	1
34. Other Violence	5	5
35. Other Defined Diseases	20	24
36. Ill-defined Causes	0	0
Diarrhœa (2 years and over)	0	0
Special Causes (included in No. 35 above)—		
Smallpox	0	0
Poliomyelitis	0	0
Polio-encephalitis	0	0

APPENDIX 2.

Vital statistics of whole District during 1938 and previous years.

Year.	Population	Births.		Deaths.		Infantile Mortality.		Maternal Mortality Rate per 1000 live and still Births.
		Number.	Rate per 1000 Population	Number.	Rate per 1000 Population	Number.	Rate per 1000 live Births.	
1929	37780	489	12.94	555	14.68	42	85	8.17
1930	37000	438	11.83	474	12.81	31	70	6.49
1931	36012	413	11.33	568	15.59	34	82	6.97
1932	35580	398	11.18	530	14.89	19	47	13.04
1933	34870	359	10.29	502	14.39	25	69	10.38
1934	34180	377	11.02	462	13.51	17	45	17.19
1935	33670	371	11.01	514	15.26	18	48	7.69
1936	33060	354	10.71	509	15.39	26	73	5.42
1937	32280	365	11.30	540	16.73	20	54	7.95
1938	31850	378	11.86	503	15.79	22	58	7.55

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